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FORM 504  DEPARTMENT OF COMMERCE  U. S. COAST AND GEODETIC SURVEY
State: Alaska
DESCRIPTIVE REPORT.
Sheet No. 4554
LOCALITY:
Baranof 1.~W. Coast
Vicinity of Necker Is.
192 5
CHIEF OF PARTY:
A M Schiaralski

## DEPARTMENT OF COMMERCE

U. S. COAST & GEODETIC SURVEY.

E. Lester Jones, Director.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET # 🕹

Vicinity of the Necker Islands. Scale-1:20000

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Season of 1925.

Steamer SURVEYOR.

A. M. Sobierslaki, H.& G.E., Chief of Party.

#### DEPARTMENT OF COMMERCE

U. S. COAST & GEODETIC SURVEY.
E. Lester Jones, Director.

#### DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET # 13

Vicinity of the Necker Islands. Scale-1:20000

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Season of 1925.

Steamer SURVEYOR

A, M. Sobieralski, H. & G.E. Chief of Party.

## DESCRIPTIVE REPORT to accompany

HYDROGRAPHIC SHEET NO.\_\_\_

#### VICINITY OF THE NECKER ISLANDS.

This sheet includes the Necker Islands which extend from West Crawfish Inlet to Sitks Sound. The work was done on a scale of 1:20000 with the exception of Hot Springs Bay which was developed on a scale of 1:10000. All the sounding was done with the steam launch "Delta", equipped with a steam sounding machine, with the exception of 5 days when gas launch #61 with a hand sounding machine was used. All hand lead sounding was done from the bow.

GENERAL DESCRIPTION AND LANDMARKS: The Necker Islands, with the exception of the smaller islands and rocks are wooded with ligh-gray cliffs on the sides exposed to the sea. average 75 feet in height. The most prominent land marks are Crawfish Island, Golovin Island, North Rock, Gumboat Rock and the large round wooded hill, 430 feet high, on the southern end of Golf Island. Crawfish Island is prominent on account of the light gray cliffs on the south side about 100 feet high which drop from the timber to the water. Golovni Island. very prominent, is a large dome shaped, bare, light-gray rock island, very similar in appearance to Biali Island. The top is 140 feet above high water. The north side of the island slopes off more gradual than the south North Rock, although only 10 feet high, is very noticeable and readily distinguished by the breaker 300 meters S.X W. of it. Rock is very prominent on account of two projections of rock rising about 20 feet above the remainder of the island. The western projection is about five feet higher.

Inshore from the Necker Islands and between West Crawfish Inlet and Kanga Bay in Sitka Sound rises the front row of peaks which average about 2500 feet high, with the timber line from 1800 to 2000 feet high. The southeasternmost of these peaks, Mt.Sharp, has a sharp pyramid shaped top. The northernmost peak, Camel Mt. runs east and west and has two summits, the eastern of which is the higher.

DANGERS: There are numerous rocks and breakers in among the Necker Islands. Off shore there are three rocks in a triangular position in a southwesterly direction from O Dome. They are 650 meters, 199° (true); 1130 meters 240° (true) and 660 meters, 275° (true) from Dome. These rocks break with any swell and show at almost all times. Seven-hundred fifty meters, 290° (true) from ⊙Pim are three breakers which always break and the northeastern-most always shows. Fourteen-hundred meters, 220 (true) from △Nec is a sunken rock which breaks slightly at low water with a moderate swell. thousand meters, 229° (true) from A Nec is a sunken rock on which was taken : sounding of 6 fathom but the party never saw this break. Eight-hundred forty meters .325° (true) from @Oak is a sunken rock which breaks with a low tide and moderate swell. Eleven fathoms or less was found off shore in the following places: 880 meters, 219° (true) from @Dome, 2520 meters, 181° (true) from A Nec, 1760 meters, 207° (true) from A Woodhouse, and 970 meters 257 (true) from A Kaiuchali.

No trace of the rock in Hot Springs Bay, the existence of which has been doubtful, was found. This rock is shown on Chart #8240 as 590 meters S.W. of the S.W. corner of Doctor Island. This rock is shown on the chart as bare at low water. A topographic party and a hydrographic party passed over this spot every day for nearly five months but never saw it or sunken rock. Rocks which bare at some stage of the tide are located as follows:

380 meters north of the middle of the narrows connecting Hot Springs Bay and For Passage and 75 meters east of a rocky point on Elvoi Island; in Big Bay 420 meters east of @ Wat; in Seven Fathom Anchorage 420 meters from the head and 50 meters off the south shore; and 150 meters west of @ Joe. There is a sumken rock 320 meters W.X S. off @ Joe. These last two rocks are marked by kelp. The other rocks mentioned in this paragraph have no kelp growing on them.

ANGHORAGES: Symonds Bay affords anchorage for ships and small boats but is exposed to northerly weather.

Hot Springs Bay affords anchorage for ships and small boats in all weather. The best anchorage for small boats is south of Doctor Island just west of the float at Hot Springs. There is muddy bottom in all the bay.

Big Bay affords good anchorage for small boats with muddy bottom in 5 to 10 fathoms off the stream in the southeast corner at the head of the bay.

Seven Fathom Anchorage affords good anchorage for small boats near the head of the bay in 7 to 10 fathoms in muddy bottom either abeam or toward the head of the bay from the rock which lies 50 meters north of the south shore and 420 meters from the head of the bay at high water. # large area at the head of the bay bares at low water.

Herring Bay affords good anchorage in 4 fathoms in muddy bottom. This bay is well sheltered in all weather. It should be entered from the southeast. No attempt should be made to enter from the southwest as this channel is too foul.

<u>QURRENTS:</u> There are no exceptionally strong currents on this sheet. In Dorothy Pass the flood current is in a northerly direction into Hot Springs Bay.

PASSAGES: The passage between Eleanor Island and the group of wooded islands south east of it has good water. Care should be taken to pass close to the eastern shore when passing a rock which bares. 200 meters, 285° (true) from © Bull.

The passage between Eleanor Island and Golf Island is foul and should not be used. If used, one should keep close to Eleanor Island.

The passage along the west side of Golf Island can be used but one should keep to the west side close to Golf Island.

Probably east

There is a clear passage from the outside starting one nautical mile west of the south end of Crawfish Island, heading 354° (true) for about 5 nautical miles until abeam of the north end of the wooded island 1/3 mile long, 300 meters south west of Elovoi Island. From this point a course of 30° (true) passes east of Goddard Island into Hot Springs Bay. This is a clear passage from the outside into Hot Springs Bay and is much shorter for one coming from the southward. Biorka Channel has a death of over 50 fathoms from the outside well into Sitka Sound. This center of this channel has much shoaler water on either side and care has to taken to keep within the 50 fathom curves.

## STATISTICS OF HYDROGRAPHIC SHEET # \_\_\_\_\_\_ NECKER ISLANDS

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		1		Miles of		,	Miles to	
Date ·	1925	Letter	Volume	Soundings	Soundings	Positions	and from	Launch
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May	23	a	1	9.8	146	91	2.1	Delta
	28	Ъ	1	9.7	97	54	12.5	11
June	4	٥	1	9.4	121	61	5.8	12
•	13	à	l ī	11.8	162	85	4.7	†B
	15	1	ī	4.8	65	32		п
		6					8.4	
	22	f	2	16.5	152	82	14.0	12
	23	g	2	0.7	14	8	13.8	17
_	24	h	2	23.2	258	130	9.8	n n
	25	i	2	23.0	272	139	6.2	H
July .	1	j	3	17.8	316	148	7.9	II.
v	2	k	3	16.9	269	136	8.5	IT.
	3	1	3	10.9	175	97		11
•	3	i	4	7.9	81	47		18
		1					6.2	
	7	m	4	3.5	42	25	7.6	11
	9	n	4	0.2	5	3	3.5	19
	11	0	4.	11.8	141	76	6.7	11
	18	P	4	5.3	66	37	3.6	IP.
	20	q	4	18.0	210	127	5.5	It
	21	T.	4	9.9	115	62		17
			<b>*</b>				7.6	
	22	S	5	10.8	133	71	3.7	11
	25	ŧ	5	8,2	121	67	7.0	11
	27	j u	5	21.6	235	136	6.3	11
	28	· v	5	6.6	76	43	9.5	11
	29	w	5	8.7	173	82		11
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August	3	У	6	7.9	127	65	2.6	н
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	13	f	7	16.8	182	<b>4</b> 97	9.7	
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	21	m	9	18.0	207	112		
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		n'	10	7.3	79	39	11.4	11
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# STATISTICS HYDROGRAPHIC SHEET # \_\_\_\_\_\_\_ NECKER ISLANDS.

				NECKER IS	LANDS.			
Date		Letter	Volume	Miles of Soundings	Soundings	Positions	Miles to and from Work	Launch
Carri Forwa				533.3	7064	3783	329.0	
Sept.	2 2 3 4	s' s' t' u'	10 11 11 11	2.9 18.5 0.5 5.1	34 245 31 69	18 138 6 37	3.7 5.8 13.5	Delta " "
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,			Area 65.0	562.3 Sq. Mi.	7443	5 <b>8</b> 82	352 <b>.</b> 0	
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September 17, 1926.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in 12 - volumes of sounding records for

> 4554 HYDROGRAPHIC SHEET NO.

Locality: S. E. ALASKA.

A. M. Sobieralski in 1925. Chief of Party:

Plane of reference is MLLW

7.5 ft. on tide staff at Crawfish Inlet

9.8 # ----do----Sitka

For reduction of soundings, condition of records satisfactory except as checked below:

- 1. Locality and sublocality of survey omitted.
- 2. Month and day of month omitted
- 3. Time meridian not given at beginning of day's work.
- 4. Time (whether A. M. or P. M.) not given at beginning of day's work.
- 5. Soundings (whether in feet or fathoms) not clearly shown in record.6. Leadline correction entered in wrong column.
- 7. Field reductions entered in "Office" column.
- 8. Location of tide gauge not given at beginning of each day's work.
- 9. Leadline corrections not clearly stated.
- 10. Kind of sounding tube used not stated.
- 11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
- 12. Legibility of record could be improved.
- 13. Remarks.

Chiof. Division of Tides and Currents.

AND REFER TO NO. 11-DEM

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#### DEPARTMENT OF COMMERCE

#### U. S. COAST AND GEODETIC SURVEY

#### WASHINGTON

February 2, 1927.

#### SECTION OF FIELD RECORDS

Report on Verification of Hydrographic Sheet No. 4554

July and August, 1925

Chief of Party, A. M. Sobieralski.

- 1. The records and notes were clear and complete with the following exceptions:
  - (a) In some cases where the same fix was used through several pages, it was not repeated at the top of each page.
  - (b) The marks do not indicate changes of course in many instances.
  - (c) Notes as to rocks were very scarse in the sounding records. In many cases the vessel ran right up to rocks or by rocks and no note appears in the record regarding them.
- 2. The protracting was accurate with the following exceptions:
  - (a) Positions 71 to 89 m' inclusive were reversed from the field party's smooth sheet plotting.
  - (b) A Table was transferred from T. 4152 by the verifier.
  - (c) o Bot and o Bik appear to be one and the same signal.
  - (d) © Gov was not found--it may be the center of Jacob Rock. (See Vol. 2, pos. h 89).
  - (e) O Nag and K' appear to be one and the same signal.
  - (f) 0 Og and o Fog appear to be one and the same signal.
  - (g) Positions were not all numbered.
- The soundings were well plotted and time intervals carefully adhered to.
- 4. The sufficiency of development in channels and on shoals will be fully set forth in the review of this sheet.
- 5. The sheet is clean and legible and its drafting conforms to the General Instructions for the Field Work.

#### Report on Ver. H. 4554 - 2

6. Considering the large number of field men working upon the sheet, the work was uniformly well done.

John Mac Mal Cartographic Dieftermen.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF TRUS LETTER

AND REFER TO NO. 11-YEC

#### DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

May 25, 1927.

#### SECTION OF FIELD WORK

Report on Hydrographic Sheet No. 4554

Baranof Island - West Coast, vicinity of Necker I., Alaska.

#### Surveyed in 1925

Instructions dated February 4, 1925 (SURVEYOR)

Chief of Party, Q. M. Sobieralski.

Surveyed by C. M. Durgin, H. A. Cotton.

Protracted by R. Sipe, E. B. Latham, E. H. Kirb, C. R. Bush, Fr. Vogt.

Soundings plotted by I. T. Sawnders, C. R. Bush, A.M. Sobieralski, E. H. Kirk, E. W. Eickelberg.

- 1. The records conform to the requirements of the General Instructions except as noted below.
  - (a) Symbol S used in fix for several pages without repeating names of signals.
  - (b) No compass courses or general directions of lines were given. Did not indicate changes in courses.
  - (c) Not sufficient notes recorded concerning kelp and rocks.
- 2. The plan and character of development conforms to the requirements of the General Instructions.
- It is recommended that the entire area covered by this sheet be dragged. Otherwise the development of channels, dangers and anchorages is not sufficient.
- 4. The depth curves for 20 fathoms and deeper could be drawn but for lesser depths the development was not sufficient.
- 5. The usual field plotting was done by the field party and very well done in general. Exceptions:
  - (a) See verifier notes.
  - (b) In 21 places, minor corrections were made, to agree with topographic sheet or sounding records.
  - (c) The low water line was transferred from the topographic sheet over the entire area except from  $\triangle$  Russell to  $\Theta$  Ink in Seven Fathom Bay. This was supplied by the reviewer.

- 6. The junction with H. 4530 on the south and with H. 4432 on the west was satisfactory.
- 7. On the north the work joins H. 2175 (1893). These old surveys were plotted in the Boat Sheet and apparently joined satisfactorily. The work in Symonds Bay was not duplicated.
- 8. The rock awash in Hot Springs Bay with 9' sounding beside it shown on the charts was found to have been plotted incorrectly on H. 2175. It should be a sunken rock with 9' of water over it. Its correct position was transferred to this sheet.
- 9. The field drafting was neatly done.

May 24, 1927.

H. A. Paton, Lt. (j.g.) U.S. Coast and Geodetic Survey.

Approved:

Chief, Field Records Section (Charts).

Chief, Section of Field Work (H. & T.)

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### HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. B

REGISTER NO. 4554

state Alaska
General locality Baranof Island-W. Coast
Locality Vicinity of the Necker Islands Scale 1-20,000 Date of survey July & Aug. 1925
Scale 1-20,000 Date of survey July v Aug. 1925
Vessel Surveyor
Chief of Party A.M. Sobieralski
Surveyed by C.M. Durgin, H.A Cotton.
Protracted by R. Sipe, E.B.L., E.H.K., C.R.B., Fr. Vogt
Soundings penciled by I.T.S. CRB, AMS EHK EWE
Soundings in fathoms V fest
Plane of reference M.LL.W at Sitka
Subdivision of wire dragged areas by
Inked by
Verified by
Instructions dated Feb 4, 1925
Remarks: Sub plan of Hot Springs Bay
on scale 1-10,000

\* I.B. Latham \* I.T. Sanders
E. H. Kirsch E. W. Eickelberg
G.R. Bush
Fr. Vogt.